

STEVEN L. BESHEAR GOVERNOR

# ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

LEONARD K. PETERS
SECRETARY

DIVISION OF WATER
200 FAIR OAKS LANE
FRANKFORT, KENTUCKY 40601
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# FACT SHEET

# KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT TO DISCHARGE TREATED WASTEWATER INTO WATERS OF THE COMMONWEALTH

KPDES No.: KY0100102 Permit Writer: Ronnie Thompson Date: June 16, 2009

**AI No.:** 3310

#### 1. SYNOPSIS OF APPLICATION

a. Name and Address of Applicant

Perdue Farms, Incorporated 5025 Highway 231 South Beaver Dam, Kentucky 42320

b. Facility Location

Perdue Farms, Incorporated 5025 Highway 231 South Beaver Dam, Ohio County, Kentucky

c. Description of Applicant's Operation

Perdue Farms is a poultry hatchery and slaughterhouse. Live chickens are slaughtered to produce ready to cook meat in the form of cut, deboned and whole birds (SIC Code 2015). Perdue Farms operates their own on site 3.0 mgd water treatment plant.

d. Production Capacity of Facility

Perdue Farms is capable of slaughtering 932,840 pounds live weight of poultry per day.

e. Description of Existing Pollution Abatement Facilities

Process wastewater is discharged after treatment by screening, dissolved air flotation and an anaerobic lagoon followed by an activated sludge aerobic system with ultraviolet disinfection. Sludge from the treatment system is thickened, dried in a waste sludge lagoon and then land applied. A portion of treated wastewater is recycled. Sanitary wastewater and hatchery wastewater are mixed before treatment by a package treatment plant. Filter backwash water from the water treatment plant is discharged to the anaerobic lagoon or to the treated effluent pump station.



# 1. SYNOPSIS OF APPLICATION - continued

f. Permitting Action

Reissuance of a minor KPDES permit for an existing source poultry hatchery and slaughterhouse.

# 2. **RECEIVING WATERS**

a. Stream Name/Location

Green River at latitude 37-20-06 and longitude 86-48-00 via wastewater pipeline.

b. Stream Segment Use Classifications

Green River is classified as Warmwater Aquatic Habitat, Primary/Secondary Contact Recreation and Domestic Water Supply.

c. Stream Segment Categorization

Green River is designated as a High Quality Water pursuant to 401 KAR 10:030, Section 1(3)(a)1.

d. Stream Low Flow Condition

N/A



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# 3. REPORTED DISCHARGE AND PROPOSED LIMITS

Serial Number - Outfall 001 - Process wastewater, sanitary wastewater, hatchery wastewater and filter backwash water.

Effluent Characteristics	Reported D: Monthly Average	ischarge Daily Maximum	Proposed I Monthly Average	Limits Daily Maximum	Applicable Water Quality Criteria and/or Effluent Guidelines
Flow (mgd)	1.398	3.381	Report	Report	401 KAR 5:065, Section 2(8)
$BOD_5 (mg/l)$	5	37	13	26	401 KAR 5:065, Section 5
Total Suspended Solids (mg/l)	11	135	18	37	401 KAR 5:065, Section 5
Fecal Coliform (N/100 ml)	20	820	N/A	400	401 KAR 5:065, Section 5
Escherichia Coli (N/100 ml)	NR	NR	130	240	401 KAR 10:031, Section 7 401 KAR 5:045, Section 4 401 KAR 5:080, Section 1(2)(c)2
Ammonia Nitrogen (as mg/l N)	8	59	4	8	401 KAR 5:065, Section 5
Oil & Grease (mg/l)	3	19	6.2	12.3	401 KAR 5:065, Section 5
Total Phosphorus (mg/l)	2.8	14.8	5	5	401 KAR 5:065, Section 2(12)(b)
Dissolved Oxygen (mg/l)	3.9 (min)		Not less tha	an 2.0	401 KAR 10:031, Section 4 401 KAR 5:045, Sections 3 and 5
Chloride (mg/l)	80	151	Removing fro	om permit	401 KAR 5:080, Section 1(2)(c)2
Total Residual Chlorine (mg/l)	BDL	BDL	Removing fro	om permit	401 KAR 5:080, Section 1(2)(c)2

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# 3. REPORTED DISCHARGE AND PROPOSED LIMITS - continued

Serial Number - Outfall 001 - Process wastewater, sanitary wastewater, hatchery wastewater and filter backwash water.

Effluent	Reported D	ischarge	Proposed	Limits	Applicable Water Quality
Characteristics	Monthly	Daily	Monthly	Daily	Criteria and/or Effluent
	Average	Maximum	Average	Maximum	Guidelines
			6.		
pH (standard units)	5.4 (min)	7.9 (max)	6.0  (min)	9.0 (max)	401 KAR 10:031, Section 4
					401 KAR 5:045, Section 4

The data in the Reported Discharge columns for Flow, Biochemical Oxygen Demand (5-day), Total Suspended Solids, Fecal Coliform, Ammonia Nitrogen, Oil & Grease, Dissolved Oxygen, Chloride, Total Phosphorus, Total Residual Chlorine and pH was determined from an analysis of the Discharge Monitoring Reports (DMRs) for the previous permit.

The abbreviation BOD₅ means Biochemical Oxygen Demand (5-day).

The abbreviation NR means Not Reported on the Discharge Monitoring Reports (DMRs).

The abbreviation N/A means Not Applicable.

The abbreviation BDL means Below Detectable Limit.

The effluent limitations for  $BOD_5$  and Total Suspended Solids are Monthly (30 day) and Weekly (7 day) Averages.

The effluent limitations for Escherichia Coli are thirty (30) day and seven (7) day Arithmetic Means.

# 4. METHODOLOGY USED IN DETERMINING LIMITATIONS

#### a. Serial Number

Outfall 001 - Process wastewater at the rate of  $1.45~\rm mgd$ , sanitary wastewater at the rate of  $0.02~\rm mgd$ , hatchery wastewater at the rate of  $0.02~\rm mgd$  and filter backwash water at the rate of  $0.05~\rm mgd$ . Total wastewater flow is  $1.54~\rm mgd$ .

#### b. Effluent Characteristics

Flow, Biochemical Oxygen Demand (5-day), Total Suspended Solids, Fecal Coliform Bacteria, *Escherichia Coli*, Ammonia Nitrogen, Oil & Grease, Dissolved Oxygen, Chloride, Total Phosphorus, Total Residual Chlorine, and pH.

#### c. Pertinent Factors

Perdue Farms is an existing source subject to the requirements of Subpart A (Simple Slaughterhouse Subcategory) of 40 CFR Part 432 - Meat and Poultry Products Point Source Category. Specifically, the effluent limitations attainable by the application of "Best Available Technology Economically Achievable" (BAT) of 40 CFR Part 432.13 and "Best Control Technology for Conventional Pollutants" (BCT) of 40 CFR Part 432.17 apply.

A summarization of the effluent requirements and calculations can be found in Attachment A - Effluent Guidelines for Pilgrim's Pride.

A comparison of the effluent guidelines and water quality limits can be found in Attachment B - Limit Comparison for Pilgrim's Pride.

# d. Monitoring Requirements

Flow shall be monitored instantaneously once per week.

Biochemical Oxygen Demand (5-day), Total Suspended Solids, Ammonia Nitrogen and Total Phosphorus shall be monitored once per week by 24-hour composite sample.

Fecal Coliform, *Escherichia Coli*, Oil & Grease, Dissolved Oxygen and pH shall be monitored once per week by grab sample.

#### e. Justification of Limits

The Kentucky Administrative Regulations (KARs) cited below have been duly promulgated pursuant to the requirements of Chapter 224 of the Kentucky Revised Statutes (KRSs).

#### Flow

The monitoring requirements for this parameter are consistent with the requirements of 401 KAR 5:065, Section 2(8).

# 4. METHODOLOGY USED IN DETERMINING LIMITATIONS - continued

e. Justification of Limits - continued

# Biochemical Oxygen Demand (5-day), Total Suspended Solids, Fecal Coliform Bacteria, Ammonia Nitrogen and Oil & Grease

The limits for these parameters are consistent with the requirements of 401 KAR 5:065, Section 5. The limits are representative of the "Best Available Technology Economically Achievable" (BAT) and the "Best Control Technology for Conventional Pollutants" (BCT) requirements for process wastewater from a simple slaughterhouse (40 CFR Part 432.13 and 40 CFR Part 432.17).

#### Escherichia Coli

The limits for Escherichia Coli are consistent with the requirements of 401 KAR 10:031, Section 7, 401 KAR 5:045, Section 4 and 401 KAR 5:080, Section 1(2)(c)2. Although Fecal Coliform Bacteria has been used as an indicator of fecal contamination, it does contain other species that are not necessarily fecal in origin. EPA recommends Escherichia Coli, which is specific to fecal material from warm-blooded animals, as the best indicator of health risks from contact with recreational waters. Therefore, it is the "Best Professional Judgment" (BPJ) of the Division of Water that Escherichia Coli be regulated on this permit.

#### Total Phosphorus

The limits for this parameter are consistent with the "no less stringent" provisions of 401 KAR 5:065, Section 2(12)(b).

# Dissolved Oxygen

The limits for these parameters are consistent with the requirements of 401 KAR 10:031, Section 4 and 401 KAR 5:045, Sections 3 and 5. Section 4 of 10:031 establishes water quality criteria for the protection of Kentucky's waters. Section 5 of 5:045 require biochemically degradable wastewaters to receive treatment in excess of secondary treatment if the Cabinet determines that the receiving water would not satisfy applicable water quality standards as a result of a facility discharge or discharges from multiple facilities.

#### Chloride and Total Residual Chlorine

The removal of these parameters from the permit is consistent with 401 KAR 5:080, Section 1(2)(c)2. A review of the DMR data for the previous permit indicated that reasonable potential did not exist for these parameters to be limited or monitored in the permit. Therefore, it is the "Best Professional Judgment" (BPJ) of the Division of Water that these parameters be removed from the permit.

#### рН

The limits for this parameter are consistent with the requirements of 401 KAR 10:031, Section 4 and 401 KAR 5:045, Section 4. Section 4 of 10:031 establishes water quality criteria for the protection of Kentucky's waters. Section 4 of 5:045 establishes the acceptable levels of this parameter for biochemically degradable wastewaters.

# 5. **ANTIDEGRADATION**

The conditions of 401 KAR 10:029, Section 1 have been satisfied by this permit action. Since this permit action involves reissuance of an existing permit, and does not propose an expanded discharge, a review under 401 KAR 10:030 Section 1 is not applicable.

# 6. PROPOSED COMPLIANCE SCHEDULE FOR ATTAINING EFFLUENT LIMITATIONS

The permittee shall comply with the effluent limitations by the effective date of the permit.

# 7. PROPOSED SPECIAL CONDITIONS WHICH WILL HAVE A SIGNIFICANT IMPACT ON THE DISCHARGE

# Best Management Practices (BMP) Plan

Pursuant to 401 KAR 5:065, Section 2(10), a BMP requirement shall be included: to control or abate the discharge of pollutants from ancillary areas containing toxic or hazardous substances or those substances which could result in an environmental emergency; where numeric effluent limitations are infeasible; or to carry out the purposes and intent of KRS 224.

# Disposal of Non-Domestic Wastes

The pass through or non-treatment by the wastewater treatment plant of chemicals or compounds which may injure, be chronically or acutely toxic to or produce adverse physiological or behavioral responses in humans, animals, fish and other aquatic life is not desirable. Materials such as acids, caustics, herbicides, household chemicals or cleansers, insecticides, lawn chemicals, non-biodegradable products, paints, pesticides, pharmaceuticals, and petroleumbased products may not be treatable by the wastewater treatment plant and should not be introduced and other environmentally sound methods for disposal should be utilized. The permittee should educate users of its system that introduction of such chemicals or compounds could result in an adverse environmental impact and provide the users with alternative disposal measures. This requirement is consistent with the requirements of 401 KAR 5:065, Section 1(5) and 401 KAR 5:080, Section 1(c)(2)c.

# Outfall Signage

It is the Best Professional Judgment of the Division of Water, 401 KAR 5:080, Section 1(2)(c)2, that all permittees post a marker at all discharge locations and/or monitoring points. The marker shall be of sufficient size to display the Permittee Name, KPDES permit and outfall numbers in 2 inch letters and shall be prominently displayed. For internal monitoring points the marker shall be of sufficient size to include the outfall number in 2 inch letters and is to be posted as near as possible to the actual sampling location.

#### Certified Operators

Pursuant to 401 KAR 5:010, Section 1 wastewater systems shall be operated under the supervision of a certified operator who holds a Kentucky Certificate equivalent to the class of system being supervised.

Pursuant to 401 KAR 5:010, Section 3 the certified operator shall be reasonably available if not physically present while the system is operating.

# 8. **PERMIT DURATION**

Five (5) years. This facility is in the Tradewater, Green Basin Management Unit as per the Kentucky Watershed Management Framework.

#### 9. **PERMIT INFORMATION**

The application, draft permit fact sheet, public notice, comments received and additional information is available by writing the Division of Water at 200 Fair Oaks Lane, Frankfort, Kentucky 40601.

### 10. REFERENCES AND CITED DOCUMENTS

All material and documents referenced or cited in this fact sheet are a part of the permit information as described above and are readily available at the Division of Water Central Office. Information regarding these materials may be obtained from the person listed below.

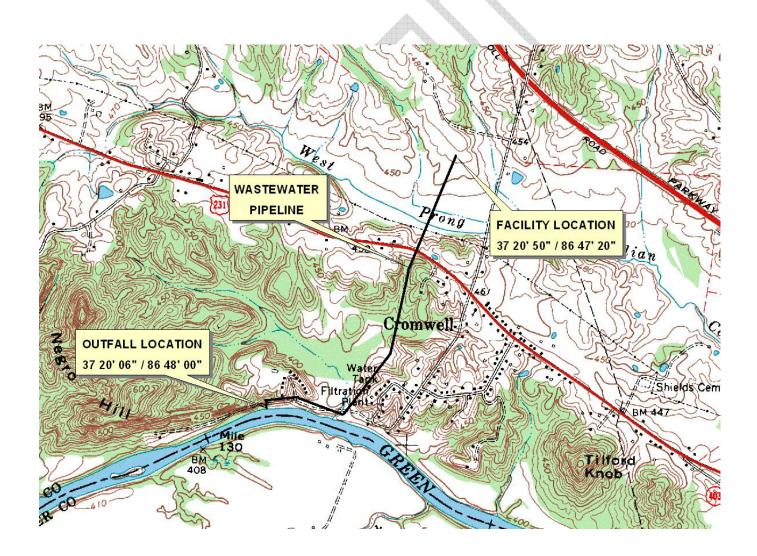
### 11. CONTACT

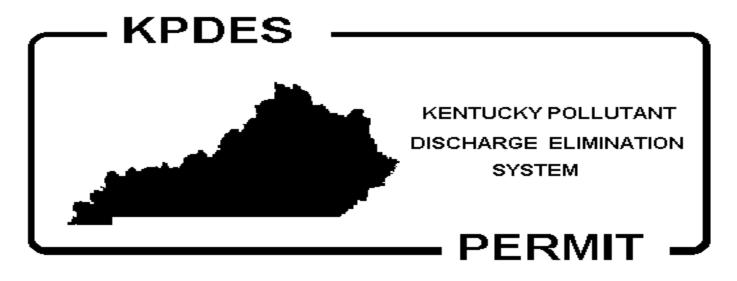
For further information, contact the individual identified on the Public Notice or the Permit Writer - Ronnie Thompson at (502) 564-8158, extension 4896 or e-mail Ronnie. Thompson@ky.gov.

# 12. PUBLIC NOTICE INFORMATION

Please refer to the attached Public Notice for details regarding the procedures for a final permit decision, deadline for comments, and other information required by 401 KAR 5:075, Section 4(2)(e).

# Perdue Farms, Incorporated





**PERMIT NO.:** KY0100102 **AI No.:** 3310

# AUTHORIZATION TO DISCHARGE UNDER THE KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

Pursuant to Authority in KRS 224,

Perdue Farms, Incorporated 5025 Highway 231 South Beaver Dam, Kentucky 42320

is authorized to discharge from a facility located at

Perdue Farms, Incorporated 5025 Highway 231 South Beaver Dam, Ohio County, Kentucky

to receiving waters named

Green River at latitude 37--20--06 and longitude 86--48--00 via wastewater pipeline.

in accordance with effluent limitations, monitoring requirements, and other conditions set forth in PARTS I, II, III and IV hereof. The permit consists of this cover sheet, PART I  $\underline{2}$  pages, PART II  $\underline{1}$  page, PART III  $\underline{2}$  pages and PART IV  $\underline{3}$  pages.

This permit shall become effective on

This permit and the authorization to discharge shall expire at midnight,

Date Signed

Sandra L. Gruzesky, Director
Division of Water

PART I Page I-1

Permit No.: KY0100102

AI No.: 3310

#### A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning on the effective date of this permit and lasting through the term of this permit, the permittee is authorized to discharge from Outfall serial number: 001 - Process wastewater, sanitary wastewater, hatchery wastewater and filter backwash water.

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS			MONITORING REQUIREMENTS		
	(lbs/	(lbs/day) Other Units(Specify)				
	Monthly	Daily	Monthly	Daily	Measurement	Sample
	Avg.	Max.	Avg.	Max.	Frequency	Type
Flow (mgd)	Report	Report	N/A	N/A	1/Week	Instantaneous
BOD <sub>5</sub>	158	317	13 mg/l	26  mg/l	1/Week	24-Hr Composite
Total Suspended Solids	224	448	18 mg/l	37 mg/l	1/Week	24-Hr Composite
Fecal Coliform (N/100 ml)	N/A	N/A	N/A	400	1/Week	Grab
Escherichia Coli (N/100 ml)	N/A	N/A	130	240	1/Week	Grab
Ammonia Nitrogen (as mg/l N)	48	97	4 mg/l	8 mg/l	1/Week	24-Hr Composite
Oil & Grease (mg/l)	75	149	6.2	12.3	1/Week	Grab
Total Phosphorus	N/A	N/A	5 mg/l	5 mg/l	1/Week	24-Hr Composite
Dissolved Oxygen (mg/l)	N/A	N/A	Not less than	2.0	1/Week	Grab

The pH of the effluent shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored 1/Week by grab sample.

There shall be no discharge of floating solids or visible foam or sheen in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: nearest accessible point prior to discharge or to mixing with the receiving waters or waste streams from other outfalls.

The abbreviation N/A means Not Applicable

The abbreviation BOD<sub>5</sub> means Biochemical Oxygen Demand (5-day)

Effluent limitations for  $BOD_5$  and Total Suspended Solids are Monthly (30 day) and Weekly (7 day) Averages.

The effluent limitations for Escherichia Coli are thirty (30) day and seven (7) day Geometric Means.

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# B. Schedule of Compliance

The permittee shall achieve compliance with all requirements on the effective date of this permit.



PART II Page II-1

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# STANDARD CONDITIONS FOR KPDES PERMIT

This permit has been issued under the provisions of KRS Chapter 224 and regulations promulgated pursuant thereto. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits or licenses required by this Cabinet and other state, federal, and local agencies.

It is the responsibility of the permittee to demonstrate compliance with permit parameter limitations by utilization of sufficiently sensitive analytical methods.

The permittee is also advised that all KPDES permit conditions in KPDES Regulation 401 KAR 5:065, Section 1 will apply to all discharges authorized by this permit.



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# PART III

# OTHER REQUIREMENTS

# A. Reporting of Monitoring Results

Monitoring results obtained during each monitoring period must be reported on a preprinted Discharge Monitoring Report (DMR) Form that will be mailed to you. The completed DMR for each monitoring period must be sent to the Division of Water at the address listed below (with a copy to the appropriate Regional Office) postmarked no later than the 28th day of the month following the monitoring period for which monitoring results were obtained.

Division of Water Energy and Environment Cabinet
Bowling Green Regional Office Dept. for Environmental Protection
1508 Westen Avenue Division of Water/Surface Water Permits Branch
Bowling Green, Kentucky 42104 200 Fair Oaks Lane
ATTN: Supervisor Frankfort, Kentucky 40601

# B. Reopener Clause

This permit shall be modified, or alternatively revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under 401 KAR 5:050 through 5:086, if the effluent standard or limitation so issued or approved:

- 1. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
- 2. Controls any pollutant not limited in the permit.

The permit as modified or reissued under this paragraph shall also contain any other requirements of KRS Chapter 224 when applicable.

# C. Disposal of Non-Domestic Wastes

The pass through or non-treatment by the wastewater treatment plant of chemicals or compounds which may injure, be chronically or acutely toxic to or produce adverse physiological or behavioral responses in humans, animals, fish and other aquatic life is not desirable. Materials such as acids, caustics, herbicides, household chemicals or cleansers, insecticides, lawn chemicals, non-biodegradable products, paints, pesticides, pharmaceuticals, and petroleum-based products may not be treatable by the wastewater treatment plant and should not be introduced and other environmentally sound methods for disposal should be utilized. The permittee should educate users of its system that introduction of such chemicals or compounds could result in an adverse environmental impact and provide the users with alternative disposal measures.

# D. Outfall Signage

The permittee shall post a permanent marker at all discharge locations and/or monitoring points. The marker shall be at least 2 feet by 2 feet in size and a minimum of 3 feet above ground level with the Permittee Name and KPDES permit and outfall numbers in 2 inch letters. For internal monitoring points the marker shall be of sufficient size to include the outfall number in 2 inch letters and shall be posted as near as possible to the actual sampling location.

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# E. <u>Certified Operators</u>

This wastewater system shall be operated under the supervision of a Class I Kentucky Certified Operator who shall be reasonably available at all times. All other operators employed by the system shall hold a Kentucky Certificate or shall be in the process of obtaining a Kentucky Certificate. The certificates of each operator shall be prominently displayed on the wall of the system office.



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#### PART IV

# BEST MANAGEMENT PRACTICES

#### SECTION A. GENERAL CONDITIONS

# 1. Applicability

These conditions apply to all permittees who use, manufacture, store, handle, or discharge any pollutant listed as: (1) toxic under Section 307(a)(1) of the Clean Water Act; (2) oil, as defined in Section 311(a)(1) of the Act; (3) any pollutant listed as hazardous under Section 311 of the Act; or (4) is defined as a pollutant pursuant to KRS 224.01-010(35) and who have ancillary manufacturing operations which could result in (1) the release of a hazardous substance, pollutant, or contaminant, or (2) an environmental emergency, as defined in KRS 224.01-400, as amended, or any regulation promulgated pursuant thereto (hereinafter, the "BMP pollutants"). These operations include material storage areas; plant site runoff; in-plant transfer, process and material handling areas; loading and unloading operations, and sludge and waste disposal areas.

# 2. BMP Plan

The permittee shall develop and implement a Best Management Practices (BMP) plan consistent with 401 KAR 5:065, Section 2(10) pursuant to KRS 224.70-110, which prevents or minimizes the potential for the release of "BMP pollutants" from ancillary activities through plant site runoff; spillage or leaks, sludge or waste disposal; or drainage from raw material storage. A Best Management Practices (BMP) plan will be prepared by the permittee unless the permittee can demonstrate through the submission of a BMP outline that the elements and intent of the BMP have been fulfilled through the use of existing plans such as the Spill Prevention Control and Countermeasure (SPCC) plans, contingency plans, and other applicable documents.

# 3. Implementation

If this is the first time for the BMP requirement, then the plan shall be developed and submitted to the Division of Water within 90 days of the effective date of the permit. Implementation shall be within 180 days of that submission. For permit renewals, the plan in effect at the time of permit reissuance shall remain in effect. Modifications to the plan as a result of ineffectiveness or plan changes to the facility shall be submitted to the Division of Water and implemented as soon as possible.

# 4. General Requirements

The BMP plan shall:

- a. Be documented in narrative form, and shall include any necessary plot plans, drawings, or maps.
- b. Establish specific objectives for the control of toxic and hazardous pollutants.
  - (1) Each facility component or system shall be examined for its potential for causing a release of "BMP pollutants" due to equipment failure, improper operation, natural phenomena such as rain or snowfall, etc.

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- (2) Where experience indicates a reasonable potential for equipment failure (e.g., a tank overflow or leakage), natural condition (e.g., precipitation), or other circumstances which could result in a release of "BMP pollutants," the plan should include a prediction of the direction, rate of flow, and total quantity of the pollutants which could be released from the facility as result of each condition or circumstance.
- c. Establish specific Best Management Practices to meet the objectives identified under paragraph b of this section, addressing each component or system capable of causing a release of "BMP pollutants."
- d. Include any special conditions established in part b of this section.
- e. Be reviewed by plant engineering staff and the plant manager.

# 5. Specific Requirements

The plan shall be consistent with the general guidance contained in the publication entitled "NPDES Best Management Practices Guidance Document," and shall include the following baseline BMPs as a minimum.

- a. BMP Committee
- b. Reporting of BMP Incidents
- c. Risk Identification and Assessment
- d. Employee Training
- e. Inspections and Records
- f. Preventive Maintenance
- g. Good Housekeeping
- h. Materials Compatibility
- i. Security
- j. Materials Inventory

# 6. SPCC Plans

The BMP plan may reflect requirements for Spill Prevention Control and Countermeasure (SPCC) plans under Section 311 of the Act and 40 CFR Part 151, and may incorporate any part of such plans into the BMP plan by reference.

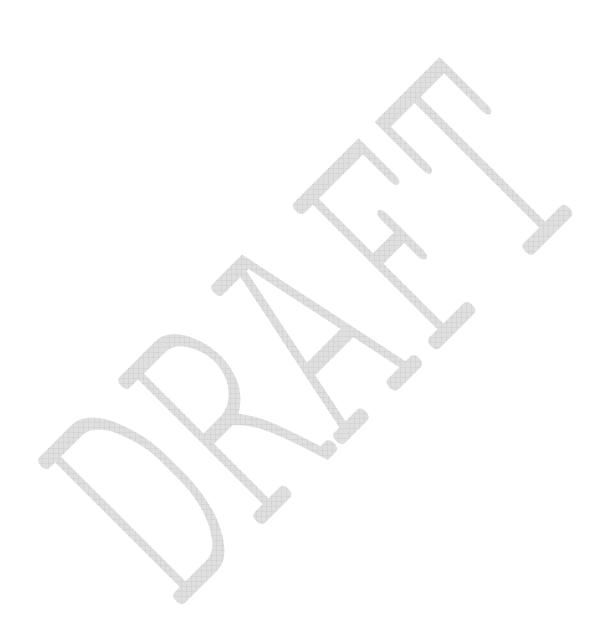
# 7. Hazardous Waste Management

The permittee shall assure the proper management of solid and hazardous waste in accordance with the regulations promulgated under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1978 (RCRA) (40 U.S.C. 6901 et seq.) Management practices required under RCRA regulations shall be referenced in the BMP plan.

#### 8. Documentation

The permittee shall maintain a description of the BMP plan at the facility and shall make the plan available upon request to NREPC personnel. Initial copies and modifications thereof shall be sent to the following addresses when required by Section 3:

Division of Water Energy and Environment Cabinet
Bowling Green Regional Office Dept. for Environmental Protection
1508 Westen Avenue Division of Water/Surface Water Permits Branch
Bowling Green, Kentucky 42104 200 Fair Oaks Lane
ATTN: Supervisor Frankfort, Kentucky 40601



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# 9. BMP Plan Modification

The permittee shall amend the BMP plan whenever there is a change in the facility or change in the operation of the facility which materially increases the potential for the ancillary activities to result in the release of "BMP pollutants."

# 10. Modification for Ineffectiveness

If the BMP plan proves to be ineffective in achieving the general objective of preventing the release of "BMP pollutants," then the specific objectives and requirements under paragraphs b and c of Section 4, the permit, and/or the BMP plan shall be subject to modification to incorporate revised BMP requirements. If at any time following the issuance of this permit the BMP plan is found to be inadequate pursuant to a state or federal site inspection or plan review, the plan shall be modified to incorporate such changes necessary to resolve the concerns.

#### SECTION B. SPECIFIC CONDITIONS

Periodically Discharged Wastewaters Not Specifically Covered By Effluent Conditions

The permittee shall include in this BMP plan procedures and controls necessary for the handling of periodically discharged wastewaters such as intake screen backwash, meter calibration, fire protection, hydrostatic testing water, water associated with demolition projects, etc.

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Fact Sheet Attachment A

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#### EFFLUENT GUIDELINES

40 CFR PART 432 - MEAT AND POULTRY PRODUCTS POINT SOURCE CATEGORY Subpart A - Simple Slaughterhouse Subcategory

Subsection 432.13 - Best Available Technology Economically Achievable (BAT) for process wastewater

Effluent Characteristic	Maximum for Any 1 Day	Maximum for Monthly Averages		
	milligrams per liter			
Ammonia (as N)	4.0	8.0		
Total Nitrogen	194	134		

# Subsection 432.17 - Best Control Technology for Conventional Pollutants (BCT) for process wastewater

Effluent Characteristic	Maximum for Any 1 Day	Maximum for Monthly Averages		
Elliuent Characteristic	lbs per thousand lbs LWK			
BOD 5	0.34	0.17		
Fecal Coliform	(1)	(2)		
Oil & Grease	0.16	0.08		
Total Suspended Solids	0.48	0.24		
(1) Maximum of 400 MPN or CFU per 1	100 ml at any time			
(2) No maximum monthly average limit	itation			

# Limit Calculations - Process Wastewater

Multiplying by the production rate of 932,840 pounds per day live weight killed (LWK) and dividing by 1,000 yields the daily maximum and monthly average limitations in pounds per day for those parameters expressed in terms of production rate.

Effluent Characteristic	Daily Maximum	Monthly Average		
Ellident Characteristic	lbs per day			
BOD 5	317	158		
Oil & Grease	149	75		
Total Suspended Solids	448	224		

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Fact Sheet Attachment B

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#### LIMIT COMPARISON

The final step in the limits determination is to compare the limitations generated by the effluent guidelines and those generated by the water quality standards for common parameters, choosing the more stringent.

#### Effluent Guidelines Generated Limits

Effluent Characteristic	Daily Maximum	Monthly Average	Daily Maximum	Monthly Average
Ellident Characteristic	mg	/1	er day	
Ammonia (as N)	8.0	4.0	97*	48*
Total Nitrogen	194	134	2346*	1620*
BOD 5	26*	13*	317	158
Total Suspended Solids	37*	18*	448	224

<sup>\*</sup>Calculations based on 1.45 mgd of process wastewater flow and a conversion factor of 8.34.

#### Water Quality Generated Limits

Effluent Characteristic	Daily Maximum	Monthly Average	Daily Maximum*	Monthly Average*
Ellident Characteristic	mg/l		lbs per day	
Ammonia (as N)	40	20	497	248
BOD 5	45	30	559	373
Total Suspended Solids	45	30	559	373

<sup>\*</sup>Calculations based on 1.49 mgd of biochemically degradable (process, sanitary and hatchery) wastewater flow and a conversion factor of 8.34.

Final Limits for Common Parameters\*

Effluent Characteristic	Daily Maximum	Monthly Average	Daily Maximum	Monthly Average	
Elliuent Characteristic	mg	7/1	lbs per day		
Ammonia (as N)	8.0	4.0	97	48	
BOD 5	26	13	317	158	
Total Suspended Solids	37	18	448	224	

<sup>\*</sup>Process wastewater is 94% of the total discharge; assume process wastewater limits apply to the total discharge. The limits for Ammonia Nitrogen are more stringent than the limits for Total Nitrogen based upon a 1:2.3 ratio derived from permit application data. Thus, it is not necessary to include Total Nitrogen in the permit. Assume the effects of relatively clean filter backwash water are negligible.

